REMARKS

By the above amendment, claims 1-8 have been canceled without prejudice or disclaimer of the subject matter thereof and new claims 9-14 have been presented in order to clarify the previously claimed features and to obtain proper consideration in the accompanying RCE.

As described in the specification of this application, in judging the cause of a shutdown of a sample processing apparatus such as that of a semiconductor processing apparatus as a result of an error, it is sometimes difficult to restart the operation to determine the cause since the apparatus has been shutdown, damage might have occurred to the apparatus or the operating condition is changed and is different from the condition at which the problem occurred. Thus, it has been difficult for the user to determine the cause of the shutdown accurately and the present invention is directed to overcoming such problems in the prior art.

In accordance with the present invention, as recited in new independent claim 9, for example, the features of a sample processing apparatus include a main unit for processing a sample having at least one processing chamber in which the sample is disposed for being processed, a recording device which records information of an operation executed by the main unit as predetermined data, a calculator which calculates and simulates the operation executed by the main unit using the predetermined data recorded during the operation executed by the main unit according to an instruction which is given by a user of the sample processing apparatus after the operation executed by the main unit, and a display which is located remotely from the main unit and displays the simulated operation. By this structure, even after the actual operation has been executed, the previously executed actual operation can be displayed by simulating such operation in accordance with the demand or instruction of a user so that an error or problems which occurred during the actual operation can be easily and correctly determined by

the operator of the apparatus, such as maintenance personnel or the like. Although applicants consider such features to be previously presented, applicants submit that such features are now more clearly set forth in the independent and dependent claims of this application, for example, with reference to claim 9, the recitation of "a calculator which calculates and simulates the operation executed by the main unit using the predetermined data recorded during the operation executed by the main unit according to an instruction by a user of the sample processing apparatus which is given after the operation executed by the main unit; and a display which is located remotely from the main unit and displays the simulated operation". As such, as is apparent from the recited features of independent claim 9, which features are also recited in the other independent and dependent claims of this application, a user can determine causes of problems detected during the actual operation through the simulation of the actual operation at a later time so that accuracy for judging the cause of error requiring shutdown can be improved and the time required for judging can be shortened. The shortened time, results in improvement of throughput of the sample processing apparatus. Applicants submit that the features as recited in the newly presented independent and dependent claims of this application are not disclosed or taught in the cited art.

The rejection to claims 1-8 under 35 U.S.C. 102(e) as being anticipated by Song et al (U.S. Patent No. 6,487,472) is traversed insofar as it is applicable to the present claims, and reconsideration and withdrawal of the rejection are respectfully requested.

As to the requirements to support a rejection under 35 U.S.C. 102, reference is made to the decision of In re Robertson, 49 USPQ 2d 1949 (Fed. Cir. 1999), wherein the court pointed out that anticipation under 35 U.S.C. §102 requires that each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. As noted by the court, if the prior

art reference does not expressly set forth a particular element of the claim, that reference still may anticipate if the element is "inherent" in its disclosure. To establish inherency, the extrinsic evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." Moreover, the court pointed out that inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.

In setting forth the rejection based upon Song et al, the Examiner contends that Song discloses all the claimed invention of the semiconductor manufacturing apparatus including a main unit 1, recording/operating means 20, display (diagnosis apparatus) 10, a program (built-in within 10/20), figures 6 and 7, column 7, lines 1-60+ and column 8, lines 1+. The Examiner further indicates that regarding applicant's argument that Song et al fails to disclose "a display of the present operation, and simulation of the operation with the display", applicants note that the aforementioned quoted portion by the Examiner does not represent the arguments presented by applicant. Furthermore, the Examiner contends that Song et al clearly discloses all the structural claimed elements and also in col. 10, lines 64+, discloses the function of the display with a control part, which can "store (may be reproducibly simulated) and display" (emphasis added).

Turning first to the Examiner's mischaracterization of applicant's arguments, applicants submit that while Song et al may be considered to provide a display of the present operation of the manufacturing apparatus in that the control system 20 continuously monitors and controls the operation of each of the fabrication systems so as to provide remote-monitor/control of the fabrication process and the operation state in the fabrication systems, as described in col. 8, lines 1-16 of Song et al, and whether or not Song et al stores the information of the sensing signal in a first

memory device 26, and whether or not standard data is stored in the same memory or another memory which standard data is compared with the stored present information to determine the numeral state by comparing the sensing signal with the standard data and drives an alarm to output an alarm signal, as described at col. 8, lines 30-40 of Song et al, there is no disclosure in the sense of 35 U.S.C. 102 or teaching in the sense of 35 U.S.C. 103 in Song et al to provide a calculator which calculates and simulates the operation executed by the main unit using the predetermined data recorded during execution of an operation of the main unit in accordance with an instruction by a user of the apparatus which is given after the operation executed by the main unit, and a display located remotely from the main unit for displaying the simulated operation. Applicants submit that Song et al is not directed to the problem to which the present invention is directed and fails to provide any disclosure or suggestion concerning simulating the previously executed operation as recited in the claims of this application. Applicants note that Song et al while disclosing memory which is capable of storing information and the use of a diagnosing software, Song et al discloses a determination system for diagnosing true-false operation of the apparatus in real time. In the present invention, it is desired to determine the occurrence of a problem of the apparatus after the occurrence of the problem which resulted in errors or shutdown of the apparatus, such that continued operation monitored in real time does not accurately indicate the conditions under which shutdown occurred or the problems causing such shutdown.

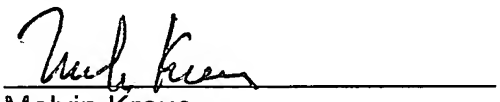
Applicants submit that it is common in the art that a time lag occurs between the occurrence of a problem and the start of countermeasures. In addition, the apparatus which needs countermeasures might be stopped after the occurrence of the problem or may be operated under different conditions so that it is difficult to determine the cause of the past phenomena. Applicants submit that Song et al does not provide a disclosure or teaching of the recited features of the independent claims

9, 11 and 13 of this application and any suggestion by the Examiner that it would be obvious to utilize the teachings of Song et al in the manner as recited in the claims of this application represents utilization of the principle of "obvious to try" which is not the standard of 35 U.S.C. 103, and utilization of the teachings of applicant against its teacher, which is not proper. See In re Fine, 5 USPQ 2d 1596 (Fed. Cir. 1988) and In re Lee, 61 USPQ 2d 1430 (Fed. Cir. 2002). Accordingly, applicants submit that the independent claims 9, 11 and 13 and dependent claims 10, 12 and 14 of this application recite features not disclosed or taught by Song et al in the sense of 35 U.S.C. 102 or 35 U.S.C. 103, and all claims should now be considered allowable.

In view of the above amendments and remarks, favorable action in this application is respectfully requested.

To the extent necessary, applicant's petition for an extension of time under 37 CFR 1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 01-2135 (500.41300X00) and please credit any excess fees to such deposit account.

Respectfully submitted,



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